## REMARKS

### A. Regarding the Amendments

By the present amendment, claims 67 and 91 have been amended to more particularly define Applicant's invention. The amendment merely clarifies the language of claims 67 and 91. New claim 95 has been added. The subject matter to which claim 95 is directed is fully disclosed in the original specification. No new matter has been added.

The Applicant acknowledges the withdrawal of the previous rejections under 35 U.S.C. § 112, first paragraph (written description), under 35 U.S.C. § 102(a) over Loffler et al., and under 35 U.S.C. § 103(a) over von Borstel, in view of the arguments made by the Applicant.

Upon entry of this amendment, claims 67, 70, 73-91, and 95 will be under consideration.

### B. Rejection Under 35 U.S.C. § 112, First Paragraph (Enablement)

Claims 67, 70, and 73-91 have been rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which allegedly was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention (the enablement requirement) (page 3 of the Office Action). This rejection is respectfully traversed on the following grounds.

The burden of demonstrating that the claims are not enabled is squarely on the Examiner, as required by *In re Wright*, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993). It is settled law that a presumption of enablement exists, and that ordinarily the lack of enablement rejection should not be given unless there are reasons to doubt the veracity of the statements in the application upon which the reliance for

enablement is based. MPEP § 2164.04. It is respectfully submitted that in this case the Examiner has not met the burden of demonstrating the alleged lack of enablement.

The legal standard for determining the adequacy of enablement is well established. To be enabling, "the specification of the patent must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation." *Genentech Inc. v. NovoNordisk*, 108 F.3d 1361, 42 USPQ2d 1001 (Fed. Cir. 1997). The Applicants submit that the specification does comply with the enablement requirement since no undue experimentation is needed to practice the methods recited in claims 67, 70, and 73-91.

Specifically, claims 67, 70, and 73-91 are directed to methods for treatment of certain mitochondrial disorders and to methods for prevention or elimination of symptoms of such disorders, using a compound of formula (I). It is submitted that, at the most, to enable those having ordinary skill in the art to practice the invention it is necessary to specifically name the compound to be used for treatment, to disclose the dosage and duration of treatment, and to specify the symptoms for which the treatment is appropriate. No more is required to enable the claims.

The specification clearly provides what compound is to be used, the dosage (page 12, lines 6-13), the duration of treatment (examples 1-5), and various other conditions for administration of the compound (pages 10-11). Thus, it is submitted that the application provides complete instruction-like directions for practicing the invention.

The Examiner has stated that the examples (except example 2) only describe the methods for triacetyluridine as opposed to uridine. Since claims 67, 70, and 73-91 now recite uridine, not triacetyluridine, the Examiner has concluded that the claims directed to the uridine treatments are therefore non-enabled. The Applicant respectfully disagrees. Taken as a whole, the application clearly enables the methods that employ both uridine and triacetyluridine.

Examples provided in the specification are non-limiting but merely illustrative (page 4, lines 3-4). It is consistently disclosed throughout the specification that the methods of treatment apply to both triacetyluridine recited originally and pure uridine that is recited now. While the claims of the original application did not include pure uridine, in the enablement context it is clear how to practice the invention as applied to uridine. For example, it is provided that the same dosages apply to any pyrimidine-based active compound within the purview of the application (see, page 12, lines 6-7), which clearly includes uridine. Thus, those skilled in the art would understand that using uridine according the guidelines specifically described for triacetyluridine is clearly contemplated by the specification.

Finally, the Applicant reiterates that it is only the necessity of undue experimentation that may make a specification non-enabling. Modest, reasonable quantity of experimentation is allowed, if it is routine or if the specification provides enough guidance. *In re Wands*, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Cir. 1988). It has never been the rule that the specification itself must necessarily describe how to use every possible variant of the claimed invention. Indeed, "the artisan's knowledge of the prior art and routine experimentation can often fill gaps, interpolate between embodiments, and perhaps even extrapolate beyond the disclosed embodiments." *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1244 (Fed. Cir. 2003).

Applying these principles to the facts of the present case, it is clear that triacetyluridine and uridine are very closely related compounds, the former being a derivative of the latter. Therefore, since the specification provides enough guidance with respect to triacetyluridine, practicing the invention using uridine would require no more than minor variations of what is described, such as adjusting the dosages and the like, which are not more than common tasks routinely performed by competent physicians. Accordingly, the Applicant respectfully submits that the specification properly enables claims 67, 70, and 73-91. Reconsideration and withdrawal of the rejection are respectfully requested.

## C. Rejection Under 35 U.S.C. § 112, Second Paragraph

Claims 67, 70, and 73-91 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failure to particularly point out and distinctly claim the subject matter which Applicant regards as the invention (page 4 of the Office Action). This rejection is respectfully traversed.

The Examiner objected to the use of the limitation "general" in claims 67 and 91. Claims 67 and 91 have been amended and the term "general" has been deleted. Accordingly, the Applicant respectfully submits that the rejection under 35 U.S.C. § 112, second paragraph, does not apply. Reconsideration and withdrawal of the rejection are respectfully requested.

## D. Double Patenting Rejection

Claims 67, 70 and 73-91 have been provisionally rejected under the non-statutory, judicially created doctrine of obviousness-type double patenting over claims 28-54 of co-pending application No. 10/868,717. While the Applicant respectfully traverses this rejection, it is believed that this issue has become moot in view of the terminal disclaimer which accompanies this response. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

## CONCLUSION

In view of the above amendments and remarks, reconsideration and favorable action on all claims are respectfully requested. In the event any matters remain to be resolved, the Examiner is requested to contact the undersigned at the telephone number given below so that a prompt disposition of this application can be achieved.

Check No. 578773 in the amount $310.00 to cover the fee for filing the terminal disclaimer is attached herewith. No other fees are believed due in connection with this Response. In the event that an additional fee is due, the Commissioner is hereby authorized to charge any amounts required by this filing, or credit any overpayment, to Deposit Account No. 07-1896.

Respectfully submitted,

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Victor Reglini reg. 45,039
for Lisa A. Haile, J.D., Ph.D.
Registration No. 38,347
Telephone: (858) 677-1456
Facsimile: (858) 677-1465

DLA PIPER RUDNICK GRAY CARY US LLP
4365 Executive Drive, Suite 1100
San Diego, California 92121-2133
**USPTO Customer Number 28213**